

Amendments to the Claims

Please cancel Claims 1 through 27 without prejudice to or disclaimer of the subject matter recited therein.

Please add new Claims 28 through 43 to read as follows.

28. (New) An image forming apparatus, comprising:

an image bearing member on which a latent image corresponding to an image signal is formed;

developing means for developing the latent image formed on said image bearing member with a developer including a carrier and a toner;

detecting means for detecting information corresponding to a magnetic permeability of the developer;

counting means for counting density information of the image signal;

supplying means for supplying the toner to said developing means;

switching means for switching, in accordance with an output of said detecting means, from a main mode in which said supplying means supplies the toner on the basis of an output of said detecting means to a sub-mode in which said supplying means supplies the toner on the basis of an output of said counting means; and

varying means for varying a period from a time when the sub-mode is selected to a time when the sub-mode is returned to the main mode in accordance with the output of said detecting means.

29. (New) An image forming apparatus according to Claim 28, wherein said varying means varies the period in accordance with a first output and a second output detected by said detecting means.

30. (New) An image forming apparatus according to Claim 29, wherein when a difference value between the first output and the second output is larger than a predetermined value, said switching means switches from the main mode to the sub-mode, and when the difference value is equal to or smaller than the predetermined value, said switching means maintains the main mode.

31. (New) An image forming apparatus according to Claim 29 or 30, wherein an amount of the toner contained in said developing means when the first output is detected is substantially the same as an amount of the toner contained in said developing means when the second output is detected.

32. (New) An image forming apparatus according to Claim 31, wherein the first output is detected immediately before a main switch of a main body of said image forming apparatus is switched off, and the second output is detected immediately after the main switch is switched on again.

33. (New) An image forming apparatus according to Claim 28, wherein said varying means varies, in accordance with the output of said detecting means, the period in number of image formations to be performed from the time when the sub-mode is selected to the time when the sub-mode is returned to the main mode.

34. (New) An image forming apparatus according to Claim 2835, wherein said varying means varies, in accordance with the output of said detecting means, the period from the time when the sub-mode is selected to the time when the sub-mode is returned to the main mode.

35. (New) An image forming apparatus, comprising:

an image bearing member on which a latent image corresponding to an image signal is formed;

developing means for developing the latent image formed on said image bearing member with a developer including a carrier and a toner;

detecting means for detecting information corresponding to a magnetic permeability of the developer;

counting means for counting density information of the image signal;

supplying means for supplying the toner to said developing means;

switching means for switching, in accordance with an output of said detecting means, from a main mode in which said supplying means supplies the toner on the basis of the output of said detecting means to a sub-mode in which said supplying means supplies

the toner on the basis of an output of said detecting means and output of said counting means; and

varying means for varying a period from a time when the sub-mode is selected to a time when the sub-mode is returned to the main mode in accordance with the output of said detecting means while reducing a ratio of an amount of the toner based on an output of said counting means to an amount of toner to be supplied by said supplying means.

36. (New) An image forming apparatus according to Claim 35, wherein said varying means varies the period in accordance with a first output and a second output detected by said detecting means.

37. (New) An image forming apparatus according to Claim 36, wherein when a difference value between the first output and the second output is larger than a predetermined value, said switching means switches from the main mode to the sub-mode , and when the difference value is equal to or smaller than the predetermined value, said switching means maintains the main mode.

38. (New) An image forming apparatus according to Claim 36 or 37, wherein an amount of the toner contained in said developing means when the first output is detected is substantially the same as an amount of the toner contained in said developing means when the second output is detected.

39. (New) An image forming apparatus according to Claim 38, wherein the first output is detected immediately before a main switch of a main body of said image forming apparatus is switched off, and the second output is detected immediately after the main switch is switched on again.

40. (New) An image forming apparatus according to Claim 35, wherein in the sub-mode, said varying means sets an initial ratio of the ratio of an amount of the toner to zero based on the output of said detecting means to the amount of the toner to be supplied by said supplying means.

41. (New) An image forming apparatus according to Claim 35 or 40, wherein in the sub-mode, said varying means gradually reduces the ratio of the amount of the toner based on an output of said counting means to the amount of the toner to be supplied by said supplying means depending on a gradual increase of the ratio of the amount of the toner based on the output of said detecting means to the amount of the toner to be supplied by said supplying means.

42. (New) An image forming apparatus according to Claim 35, wherein said varying means varies, in accordance with the output of said detecting means, the period in number of image formations to be performed from the time when the sub-mode is selected to the time when the sub-mode is returned to the main mode, while reducing the ratio of

the amount of the toner based on the output of said counting means to the amount of the toner to be supplied by said supplying means.

43. (New) An image forming apparatus according to Claim 35, wherein said varying means varies, in accordance with the output of said detecting means, the period from the time when the sub-mode is selected to the time when the sub-mode is returned to the main mode, while reducing the ratio of the amount of the toner based on the output of said counting means to the amount of the toner to be supplied by said supplying means.